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EXAMINER

LAZORCIK, JASON L

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/811,309	Applicant(s) RICHARDSON ET AL.	
	Examiner JASON L. LAZORCIK	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of the Claims

Claims 1-22 are pending for prosecution on the merits

Applicants reply dated October 14, 2008 presents no amendments to the claims.

It follows that the claimed invention stands as presented in Applicants reply dated March 10, 2008.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 8, 9, 10, 11, 19 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The limitation "at least (3 or 5) times more resistant to scratching via a glove mar test" in claims 8 and 9 is a relative concept which renders the claim indefinite. The physical process included in "a glove mar test" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Therefore a process which yields a three fold or five fold enhancement in

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resistance to scratching by said "glove mar test" test as set forth in claims 8 and 9, respectively, is indefinite.

Likewise, the limitation "at least (3 or 5) times more resistant to scratching via an abrasion brush test" in claims 10 and 11 or an abrasion test in claims 19 and 20 represent relative concepts which render the claim indefinite. Neither physical process encompassed in "an abrasion brush test" or a general "abrasion test" are adequately defined in the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Therefore a process which yields a three fold or five fold enhancement in resistance to scratching by said "abrasion brush test" or a general "abrasion test" as set forth in claims 8 and 9 and claims 19 and 20 , respectively, is indefinite.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stachowiak (US 6,602,608) in view of Medwick (US 6,882,773) and Konda (US 5,254,201).

Stachowiak teaches a multi-layered low-E reflective film (Table 1, Figure 1) comprising at least one infrared reflecting layer with silver “sandwiched” between at least a first and second dielectric layer. The reference teaches that the layers are deposited by a sputter coating process (Column 5, lines 57-67), that the uppermost layer of the coating comprises Silicon Nitride, that it is known to heat treat said coated articles (e.g., thermally temper, heat bend or the like) (column 2, Lines 58-63), and finally to incorporate said sheets into “architectural windows (e.g. IG units)”. The instant reference clearly indicates that the disclosed thin film structure will have a transmission of at least 65% through at least 80% on occasion (Column 6, Lines 51-53). Stachowiak is silent regarding the subsequent processing of the Low-E glass sheet after thin film deposition or regarding the application of a removable, protective coating to the substrate.

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In accord with applicants disclosed (prior art) figure 1, it is also understood to be well known and established in the art to coat the Low-E glass substrate with a protective film and to subsequently cut, edge seam, and wash the coated substrate. This assertion is corroborated by the teachings set forth by Medwick (US 6,882,773) which indicates that “for substrates with one or more functional coatings (e.g. a functional coating on the first surface) the protective coating is preferably deposited over at least a portion of the functional coating(s) to protect the functional coating(s) from mechanical and/or chemical damage and/or misidentification during shipment, storage, handling, and processing” (Column 3, Lines 15-21). The reference continues by specifically citing the need to protect the functional coating on Insulated Glass (IG) units from marring or damage during processing, shipment or storage (column 1, Lines 40-45). Finally, the instant reference teaches that it is beneficial to alter the color of the coating in any manner deemed appropriate to clearly and easily identify the nature of the coating on the glass substrate (including altering the coating to a green tint) (Column 12, Lines 6-55). By applicants admitted prior art and the teachings set forth by Medwick, it would have been obvious to one of ordinary skill in the art to apply a protective film to the IG substrate prior to cutting, edge seaming, and washing said substrate in order to appropriately protect the functional surface from damage or marring. The combined Medwick and Stachowiak still fail to explicitly set forth the application of a flexible solid film comprising polyethylene with an adhesive layer comprising acrylic as the protective film.

Konda (US 5,254,201) teaches that a preformed and solid protective sheet having excellent water resistance can be made from polyethylene (column 3, Lines 21-28) with a pressure-sensitive adhesive layer of an acrylic type (Column 3, Line 46). The instant reference continues by disclosing the application of this protective sheet to a semiconductor wafer to prevent damage to the thin film circuit pattern printed on the surface thereof during grinding and/or polishing procedures performed on the wafer (Column 1, Lines 15-58). It further indicates that when the presence of the film is no longer deemed necessary, it can be directly stripped from the surface of the substrate either by hand or machine. The immediate reference is considered to be analogous prior art for the claimed subject matter since the disclosed film is applied to a substrate in such a manner to protect the fine structure of a film formed thereon from damage or marring. It would therefore have been obvious to one of ordinary skill in the art of thin film processing to utilize the solid film set forth by Konda as the protective film collectively taught by the Medwick and Stachowiak references. This would be an obvious substitution for the Medwick film taught above since the pressure sensitive adhesive in the Konda film allows simple removal of the film by machine or by hand when its presence is no longer required.

With respect to claims 8, 9, 10, 11, 19 and 20, it is the Examiners position, absent any compelling evidence to the contrary, that application of the Konda protective sheet to the Stachowiak Low-E glass substrate in the manner set forth above would inherently yield Applicants claimed enhanced resistance to scratching via either the

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glove mar test and/or the abrasion brush tests. Alternately, it is the Examiners understanding that the relative resistance to scratching would be recognized by one of ordinary skill in the art as a function of the thickness of the protective sheet coating. It follows that a skilled artisan in functionally coated glass sheets would be fully equipped to specify an appropriate thickness for the protective sheet in view of the typical processing and handling conditions for said glass sheet. In short, Applicants claimed scratch performance would reasonably be derived by one of ordinary skill in the arts through no more than routine experimentation and optimization of the protective sheet thickness.

Regarding Applicants newly submitted claims 21 and 22, none of the cited prior art references explicitly limit the substrate temperature to fall between 60-120°C or 90-120°C as required in the respectively identified claims. With this point in mind, it is the Examiners position that the claimed temperature ranges are insufficient to patentably distinguish the claimed invention over that set forth in the collective prior art.

Applicant's specification indicates that the claimed temperature range naturally flows from the deposition of the Low-E coating process (paragraph [0038], pages 10-11). One of ordinary skill in the art at the time of the invention would have recognized the benefit to applying the protective sheet in as expedient a timeframe as possible after formation of the Low-E coating, namely as a means to minimize the potential for surface contamination. The skilled practitioner would have likewise been well aware that application of the protective sheet on a substrate of too high a temperature would result

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in potentially irreversible damage to either the organic adhesive and/or polyethylene backing sheet. In view of the foregoing and absent any evidence of unexpected results to the contrary, it is the Examiners position that the claimed substrate temperature ranges would have been derived by the skilled practitioner through no more than routine experimentation and optimization of the prior art disclosed process.

Response to Arguments

Rejection of Claims under 35 U.S.C. §112, First Paragraph

Applicant's arguments, see pages 2-3, filed October 14, 2008, with respect to the rejection of claims 8-11 and 19-20 under 35 U.S.C. §112, first paragraph have been fully considered and are persuasive. Citing *In re Marzocchi*, 439 F.2d 220, 224 (CCPA 1971) and MPEP §2163.04, Applicant argues that a description as filed is presumed to be adequate. The rejection of claims 8-11 and 19-20 under 35 U.S.C. §112, first paragraph has been withdrawn.

Rejection of Claims under 35 U.S.C. §112, Second Paragraph

Applicant's arguments see pages 2-3 filed October 14, 2008 regarding the rejection of claims 8-11 and 19-20 under 35 U.S.C. §112, second paragraph have been fully considered but they are not persuasive.

Initially, Applicant argues that the legal test for adequacy under 35 U.S.C. §112, second paragraph is "whether the claims contain subject matter that was not described in the specification in such a way as to reasonably convey to one skilled in the relevant

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art that the inventors were in possession of the invention at the time the application was filed".

In contrast to Applicants above stated test, Applicant is respectfully advised that the essential inquiry pertaining to the requirement under 35 U.S.C. §112, second paragraph is whether the claims set out and circumscribe a particular subject matter with a reasonable degree of clarity and particularity. More specifically, the two separate requirements set forth in this paragraph are as follows;

(A) the claims must set forth the subject matter that applicants regard as their invention; and

(B) the claims must particularly point out and distinctly define the metes and bounds of the subject matter that will be protected by the patent.

With particular respect to the second requirement, the claims at issue must apprise one of ordinary skill in the art of its scope thereby providing clear warning to others as to what constitutes infringement of the patent. A secondary purpose is to provide a clear measure of what applicants regard as the invention so that it can be determined whether the claimed invention meets all the criteria for patentability.

The identified claims fail the noted test on both counts.

Although Applicant points to paragraph [0049] and Figure 6 as supporting evidence to rebut the rejection under 112, second paragraph, Applicant is advised that the cited passages provide substantially no detail regarding the materials or methods employed in either the "glove mar test" or the "abrasion brush test". Further, one of

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ordinary skill in the art would not necessarily have been apprised of the detailed procedure in view of the Specification as originally filed.

Take the glove mar test as an example; the claimed film would reasonably be expected to respond differently depending whether a silk glove, a leather glove, or a steel glove is used by virtue of the differing abrasiveness of the materials. The question therefore arises as to the extent of the invention and the ability for one of ordinary skill in the art to be apprised of the metes and bounds of the claimed invention. Similar difficulties arise when considering additional variables including, *inter alia*, pressure applied, temperature of the film, humidity, etc. It follows that one of ordinary skill, absent further details regarding the nature of the claimed test methods, would not reasonably be able to ascertain the particular metes and bounds for which Applicant seeks patent protection.

The noted rejection of claims 8-11 and 19-20 under 35 U.S.C. §112, second paragraph therefore stands as presented in the October 14, 2008 Official Action.

Rejection of Claims under 35 U.S.C. §103(a)

Argument #1)

Applicant presents a variety of arguments, directed exclusively against the combination of Stachowiak and Medwick references, including that neither reference teaches nor suggests application of a protective coating "in non-liquid form" and that the Medwick reaction product "cannot be removed by peeling".

In response to applicant's arguments against the combined references to Stachowiak and Medwick, Applicant is advised that the grounds of rejection are based upon the three-way combination of references to Stachowiak, Medwick, and Konda under 35 U.S.C. §103(a). Applicant's arguments which fail to acknowledge the closely related teachings in the Konda reference are therefore held to be moot. Specifically, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Argument #2)

Applicant next argues that "there is no reason why one of ordinary skill in the art would have ever used Konda's conductive wafer-protective sheet in the device of Stachowiak" and that the Konda teachings constitute non-analogous art to the Stachowiak and Medwick references.

In response to Applicant's argument that there is no suggestion to combine the references, the Examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

In the instant case, Applicant was previously advised that both Medwick and Konda share a common goal, namely to prevent the marring of a delicate thin film structure on a refractory substrate. Applicant was further advised that one having no more than an ordinary level of skill would recognize the applicability of Konda film protecting the Low E coatings of the Stachowiak and Medwick references. Applicant's observation that the Konda film additionally provides the additional benefit of antistatic properties in no manner detracts from the motivating influences which would lead the skilled artisan to combine the references in the manner previously described.

Argument #3)

Regarding the rejection of claims 8-11 and 19-20, Applicant contests the Examiners finding of inherency or obviousness regarding the abrasion resistance to the glove mar and abrasion brush tests. With respect to this matter, Applicant argues that "the Office Action has not demonstrated that the application of Konda's protective sheet to Stachowiak's Low-E glass substrate must necessarily yield Applicant's specifically claimed enhanced resistance to scratching".

In response and notwithstanding the outstanding issues with the instant limitations under 35 U.S.C. §112, second paragraph as noted above, the Konda reference teaches an adhesive and protective film which is substantially identical to that claimed in the instant invention. Similarly, Stachowiak teaches a Low-E glass substrate which is substantially identical to Applicants claimed substrate. Where the obviousness of combining the Konda film with the Stachowiak substrate has been reasonably

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demonstrated, it follows that the claimed resistance to abrasion would implicitly or inherently flow from the combined product. Alternately, Applicant was advised that one of ordinary skill in the art would reasonably be expected to tailor the particular thickness of the protective sheet and that Applicants claimed abrasion resistance, before or after removal of the film, would reasonably be derived through no more than routine experimentation and optimization of the disclosed process.

Whether the rejection is based on inherency or on *prima facie* obviousness, jointly or alternatively, the burden of proof is the same. Specifically, where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a *prima facie* case of either anticipation or obviousness has been established. Once a reference teaching a product appearing to be substantially identical is made the basis of a rejection, the burden shifts to the Applicant to show an unobvious difference (see MPEP §2112).

To the extent that Applicant appears to purport a difference between the prior art protected substrate and that presently claimed, Applicant is advised that no evidence has been made of record in support of the instant allegations. Since Applicant has provided no conclusive evidence in support of the instant allegations, it follows that said allegations are held to be mere conjecture and attorney argument.

The Official policy regarding Attorney argument is clearly outlined in MPEP §2145 [R-3];

“Attorney argument is not evidence unless it is an admission, in which case, an examiner may use the admission in making a rejection. See MPEP § 2129 and §

2144.03 for a discussion of admissions as prior art. The arguments of counsel cannot take the place of evidence in the record. In re Schulze, 346 F.2d 600, 602, 145 USPQ 716, 718 (CCPA 1965); In re Geisler, 116 F.3d 1465, 43 USPQ2d 1362 (Fed. Cir. 1997) ("An assertion of what seems to follow from common experience is just attorney argument and not the kind of factual evidence that is required to rebut a prima facie case of obviousness."). See MPEP § 716.01(c) for examples of attorney statements which are not evidence and which must be supported by an appropriate affidavit or declaration.

Argument #4)

Regarding the rejection of Claims 21 and 22 under 35 U.S.C. §103(a), Applicant acknowledges the Examiners finding such that the claimed substrate temperature ranges would have been derived by the skilled practitioner through no more than routine experimentation and optimization. Applicant further acknowledges the Examiners motivation to apply the protective sheet in "as expedient a timeframe as possible after formation of the Low-E coating". Applicant however alleges that that Examiner has failed to provide "clearly articulated reasoning as to why such a modification would have been made by one of ordinary skill at the time of the invention.

Applicant's arguments on this matter are unpersuasive.

Specifically, Applicant was advised that" One of ordinary skill in the art at the time of the invention would have recognized the benefit to applying the protective sheet in as expedient a timeframe as possible after formation of the Low-E coating, namely as a means to minimize the potential for surface contamination". Where minimization of

surface contamination has been clearly articulated as a motivating influence to expedite application of the surface protective film, Applicants arguments alleging that no motivation has been thusly articulated are held to be unpersuasive.

Conclusion

1. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON L. LAZORCIK whose telephone number is (571)272-2217. The examiner can normally be reached on Monday through Friday 8:30 am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on (571) 272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Steven P. Griffin/
Supervisory Patent Examiner, Art
Unit 1791

JLL